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ADWD-139

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LAMD-311

FAMILY COMMITTEE
Minutes of Tenth Meeting
May 17, 1950.

SAA 2000693400000
Unique Document #

A. Attendance.

The tenth meeting of the Family Committee was held Wednesday, May 17th, 1950 at 1:15 PM in Room B-117. Those present were

N. E. Bradbury	E. R. Jette
F. G. Brickwedde	D. P. MacDougall
S. W. Burriss	D. P. MacMillan
F. de Hoffmann	J. C. Mark
D. K. Froman	J. C. Potts
R. W. Goranson	R. L. Spaulding
D. B. Hall	R. F. Taschek
E. F. Hammel	E. Teller, Chairman
M. G. Holloway	J. A. Wheeler

B. Minutes of the Ninth Meeting.

The Committee unanimously adopted the minutes of the Ninth Meeting reported in ADWD-136 with the following correction:

On page 5, the word HOW" should have been HOW' wherever it appears in the fifth paragraph.

In response to a question, Teller elaborated on the energy level determination in the FLUNEX experiment. He remarked that in principle there were two methods of obtaining a rough indication of the energy level from FLUNEX. These are

(1) Observing the shape of the curve in the fission phase and observing at what point on the time scale it departs from the constant alpha region. By means of calculations, one will then be able to establish the absolute energy level, similar to the old alpha Rossi experiment--except that in the latter case distortion due to other effects played a considerable role.

(2) If FLUNEX works better than one has hoped, one may be able to get an absolute value for the amount of fluorescence created.

DOE b(3)

Teller emphasized that it was much more likely that one would be able to achieve possibility (1) rather than possibility (2).

DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW
1ST REVIEW-DATE: 2-28-17 AUTHORITY: DOE DADD NAME: [illegible] 2ND REVIEW-DATE: 8/25/17 AUTHORITY: ADD NAME: [illegible]
DETERMINATION (CIRCLE NUMBER(S)) 1. CLASSIFICATION RETAINED 2. CLASSIFICATION CHANGED TO: 3. CONTAINS NO DOE CLASSIFIED INFO 4. COORDINATE WITH: 5. CLASSIFICATION CANCELLED 6. CLASSIFIED INFO BRACKETED 7. OTHER (SPECIFY):

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Some discussion ensued concerning the second paragraph of Section I. It was agreed that the figure 42" would be taken as a tentative design figure but that by about July 1st enough detailed information should be available about the experiments to be performed at the tests so that a definite figure can be frozen on.

C. TENEX and FLUNEX.

In view of the fact that Harold Agnew and Harold Argo were examining these and other possible schemes to back up DINEX, the Committee agreed to postpone discussion of this item until after such time as Argo and Agnew had rendered their report.

D. Detonator Initiator.

Spaulding reported on the progress to date. The present design is essentially that shown in Figure 1 of the minutes of the Seventh Meeting with only minor modifications. Mockups containing all contemplated components except for the polonium have been fabricated. Several of these have been fired and it is seen that rather complete destruction of the beryllium takes place.

A test box strong enough to withstand about twice the contemplated explosive charge has been fabricated and weighs about one ton. Preliminary tests show satisfactory performance of this test box. The program for the immediate future is to continue testing out the test box. This should be completed within about two weeks. The detonator initiator will then be ready for neutron counting tests with polonium present in the initiator. It is not contemplated that any static neutron counting following the shots will be made since the volume of the box is so great that the dilution of the polonium will be very great--thus giving rise to a counting rate much lower than the true one for a working initiator.

MacMillan reported that Group W-3 would expect to make time dependent tests sometime in July and possibly by June. At present W-3 is very busy with the test program for Abner and they would like to carry along this program to an sufficient extent before embarking on the test program for the detonator initiator.

DOE 6(3)

DOE (b)

F.

DOE (b)

DOE (b)

[redacted]

Some doubt was expressed concerning the advisability of tying the two vacuum systems together particularly in view of possible troubles with moisture in the York system, although it was realized that these might be overcome.

[redacted]

Hence the group agreed that an arrangement of type (b) as close to the middle as practicable to be most desirable. This is the arrangement shown shhematically in Figure 1. Discussions ensued

DOE
b(3)

FIG. 1